



**SOLVOYO**



# Service Parts Network Optimization to Reduce Costs

Solvoyo Case Study of Applied Materials



## Service Parts Network Optimization to Reduce Costs

Applied Materials is the global leader in providing innovative equipment, services, and software to enable the manufacture of advanced semiconductor, flat panel display and solar photovoltaic products. Its fiscal 2012 sales were \$8.7 billion.

With costs escalating, Applied Materials wanted to rationalize its time-critical service network in North America consisting of over fifty locations, serving several hundred high-value semiconductor equipment manufacturers. Their business objective was to reduce both their spare parts inventory investment and transportation costs while meeting or exceeding target response times specified in their multi-level service level agreements (SLA).

### SOLUTION

Solvoyo's challenge was to design an agile North American service parts network for Applied Materials – a network consisting of over 600 vendors feeding over 45,000 different after-sale service products through their nine service centers.

Solvoyo's Elevation platform was used to determine the optimal size of the service network, assign service locations to distribution centers, set safety stock levels by SKU and minimize the total cost to satisfy the response-time requirements in their SLAs. Cost-to-serve model considered both fixed and variable operating costs for the distribution centers, inventory investments in all forms, and delivery costs under different response time requirements.

### VALUE PROPOSITION

Applied Materials has realized in excess of \$10 million of annual savings while achieving the target response times specified in their multi-tier service level agreements. The customer success is also recognized by Interfaces, a premier journal for practitioners. See *Applied Materials Uses Operations Research to Design Its Service and Parts Network*, INTERFACES, Vol. 40, No. 4, July-August 2010, pp. 253-266

### ABOUT SOLVOYO

Solvoyo is an international enterprise software company based in Boston, MA, and Istanbul, Turkey. We bring your business significant value through the use of innovative supply chain optimization techniques that help you minimize costs while you maximize customer service and profit.

We make it easy for you to get immediate benefits -- our Software-as-a-Service based Elevation platform is implemented very quickly. When combined with our pay-as-you-go business model, you get an extremely short time-to-benefit and at a minimum up-front cost.

We have documented cases where our technology has solved complex, high-volume problems that competitors could not solve at all! You can obtain more information from our website:

[www.solvoyo.com](http://www.solvoyo.com)